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CLAIMS

1. A component transportation and installation device which is a device which transports and installs an installed component in an installation position of a receiving body, characterized by providing: a grip mechanism which grips an installed component; component transportation means of moving this grip mechanism with an actuator; first control means of controlling the actuator of this component transportation means according to a set value and performing drive control so as to transport and install the installed component in the installation position; second control means of performing assist control of the actuator of the component transportation means, and performing drive control so as to reduce a burden of a worker performing operation in order to transport and install the installed component in the installation position; and mode switch means for switching the first control means and the second control means.

2. A component transportation and installation method which is a method of transporting and installing an installed component in an installation position of a receiving body using component transportation means having at least an actuator for transportation, characterized by performing transportation and installation by selecting an actuator automatic control step of automatically transporting and installing the installed component in the installation position with controlling the actuator according to a set value,

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or an actuator assist control step of reducing a burden of a worker, who performs transportation and installation operation of the installed component, by performs assist control of the actuator, at arbitrary time according to a work condition and the like.

3. A component transportation and installation method which is a component transportation and installation method including a step of installing an installed component, transported near an installation position, in a receiving body, characterized by providing: a step of positioning the installed component in the installing section of the receiving body by operating the installed component transported near the installation position in an assist mode which can reduce a worker's burden; a step of installing the positioned installed component in the receiving body automatically; and a step of moving a grip mechanism, which grips the installed component after completion of installation, to a predetermined position in an automatic mode.

4. A component transportation and installation device which is a transportation and installation device for installing an installed component in a receiving body, characterized by comprising: a grip mechanism which can grip the installed component; component transportation means equipped with an actuator for transporting this grip mechanism; and an installation mechanism which can perform installation work

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in a state that the installed component is positioned in an installing section of the receiving body, and in that operation of the actuator of the component transportation means is made a switching type between an automatic mode which does not need a worker, and an assist mode which can reduce a worker's burden although a worker's intervention is needed; and that control means performing control to select the assist mode when positioning at least the installed component is provided.

5. A component transportation and installation method which is a component transportation and installation method of transporting an installed component in a component supply position toward an installation position with gripping it by a grip mechanism while conveying a receiving body, which is given pitch feed, to the installation position sequentially, returning the grip mechanism to the component supply position at the time of completion of installing the installed component in the receiving body, and repeating this, characterized by: making it free to perform switching between an automatic mode which does not need a worker, and an assist mode which can reduce a worker's burden although a worker's intervention is needed, as means of transporting the installed component, and simultaneously; performing switching to the automatic transportation mode after gripping the installed component by the grip mechanism and automatically transporting the installed component at least nearby the installation position; and making the grip mechanism returned to the component supply

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position in the automatic mode when installation of the installed component is completed; and simultaneously transporting and installing at least two installed components in the installation position in a stop period of one pitch feed of the receiving body.

6. A component transportation device which is a device for transporting and installing an installed component in a receiving body which is given pitch feed, characterized by comprising: receiving body transportation means for performing pitch feed of the receiving body; a grip mechanism which grips the installed component in a component supply position; and component transportation means of transporting this grip mechanism at least to the installation position in an automatic transportation mode which does not need a worker, or an assist transportation mode which can reduce a worker's burden although a worker's intervention is needed, and returning it in the automatic transportation mode or assist transportation mode to the component supply position when installation is completed, and in that the grip mechanism is controlled so as to transport at least two installed components in an installation position in a stop period of one pitch feed of the receiving body.

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